

DISJUNCT DISTRIBUTION AND A NEW RECORD FOR AN ANTHOPHORID BEE, *XENOGLLOSSODES ALBATA* (HYMENOPTERA: ANTHOPHORIDAE), IN SOUTHEASTERN UNITED STATES¹

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ABSTRACT: *Xenoglossodes albata* (Anthophoridae: Eucerini) is reported from a remnant of the Black Belt Prairie in Oktibbeha County, Mississippi. Although all flowering plants in prairie remnants were sampled during June, 1991, females with pollen were collected only on flowers of *Petalostemum purpureum*. Collections of this oligolectic bee in Mississippi represent the first record of the genus in southeastern United States and a disjunction of the species from its previously known range in the midwestern plains states.

The Mississippi Entomological Museum is currently conducting a survey of selected arthropods, including bees and their floral hosts, in remnants of the Black Belt Prairie in northeastern Mississippi and the loessal hills in Grenada County, Mississippi. More than 900 specimens of bees have been collected in these unique habitats since June, 1991, and among these is the first record of *Xenoglossodes albata* (Cresson) in the southeastern United States.

Xenoglossodes includes 18 species, of which all but *X. albata* occur in the western United States. *Xenoglossodes albata* previously was known to occur only in the midwestern plains states from Colorado to Texas and South Dakota and as far east as Illinois, where it has been reported as a visitor to *Petalostemum purpureum* (Vent.) Rydb. (Fabaceae) (Hurd, 1979; Robertson, 1929).

In our survey of bees in prairie remnants in Mississippi, we collected the following specimens of *X. albata* in Oktibbeha County: 2 females and 3 males, 14 June 1991, on *P. purpureum* (T.L. Schiefer); 5 males, 22 June 1991, on *P. purpureum* (R.L. Brown); and 1 male, 1 July 1991, on *P. candidum*, (Willd.) Michx. (J.R. MacDonald). Females were carrying pollen, whereas males were assumed to be gathering nectar. This species appears to be oligolectic on *Petalostemum purpureum* in Mississippi as females with pollen were not collected from any of the other flowering plants in the prairie remnants, which were extensively sampled during this time period. All of the specimens were collected approximately 6 miles north of Starkville in the southeastern quadrant of Section 36,

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T20N, R 14E. Two visual sightings of this species were made during June in Lowndes County, near Crawford, in Section 34, T 17N, R 16E.

The Black Belt Prairie was once one of the largest prairies in the eastern United States, extending on Cretaceous Selma Chalk from northern Mississippi to near the Alabama-Georgia border. Although most of the prairie was lost to agriculture by the early 1900's, several small remnants have survived, including 6 of our survey sites that range in size from 100 to 350 acres. These remnants have suffered some erosion and incursion of *Juniperus* and hardwoods, and their deterioration is probably due to lack of fires. The flora, which consists of *Bouteloua*, *Liatris*, *Blephila*, *Siplium*, *Petalostemum*, and other genera characteristic of prairie habitat, has flowering peaks in mid-June and again in mid-September. Although visits to these remnants were made weekly or twice weekly from the first of June to the end of September, *X. albata* was detected only on 2 sites, associated with the mid-June blooming peak of *Petalostemum*.

Petalostemum purpureum is not recorded from Mississippi in most general texts. Rickett (1967) lists it as a prairie inhabitant from Indiana to Saskatchewan and Montana, southward to Tennessee and New Mexico, and occasionally further eastward, and Bailey and Bailey (1976) list it as occurring from Indiana to Saskatchewan, south to Tennessee and New Mexico. However, during June through early August it was one of the predominant plants of all six prairie sites under investigation.

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